In the Claims

What is claimed is:

1. (currently amended) An electrochemical gas sensor, comprising:

a first cell in communication with a second cell;

each cell having:

a substrate having a surface;

a sensing electrode and a counter electrode being spaced apart from one another and deposited on said surface;

an electrolytic material in contact with said sensing electrode and having a thickness;

an electrolytic film having a thickness and covering ~~being in contact with~~ said sensing electrode for increasing a contact area between said film, said sensing electrode, and a gas to be detected~~carrying a flow of ions~~;

~~an electrolytic material extending from said sensing electrode to said counter electrode~~said thickness of said electrolytic material is larger than said thickness of said electrolytic film;

a reservoir in contact with said electrolytic material on a side opposite of said substrate; and

a solution in said reservoir for hydrating said electrolytic material.

2. (currently amended) The electrochemical gas sensor according to claim 1, wherein said substrates of said first and second cells are in contact with one another~~combined~~.

3. (previously presented) The electrochemical gas sensor according to claim 1, wherein said first and second cells further include a reference electrode in contact with

said electrolytic material and being spaced apart from said sensing and counter electrodes.

4. (cancelled).

5. (original) The electrochemical gas sensor according to claim 1, wherein said first and said second sensing electrodes are the same material.

6. (original) The electrochemical gas sensor according to claim 1, wherein said first and said second sensing electrodes are different materials.

7. (cancelled).

8. (cancelled).

9. (currently amended) An electrochemical gas sensor, comprising:

a first cell in communication with a second cell;

each cell having:

a substrate having a surface;

a sensing electrode and a counter electrode being spaced apart from one another and deposited on said surface;

an electrolytic material in contact with said sensing electrode and having a thickness;

an electrolytic film having a thickness and covering said sensing electrode for increasing a contact area between said film, said sensing electrode, and a gas to be detected;

~~an electrolytic material extending from said sensing electrode~~ said thickness of said electrolytic material is larger than said thickness of said electrolytic film~~to said counter electrode~~;

a reservoir in contact with said electrolytic material on a side opposite of said substrate;

a solution in said reservoir for hydrating said electrolytic material; and

said sensing electrode of said first cell being of a material that is more sensitive to detecting a gas than a material of said sensing electrode of said second cell.

10. (previously presented) The electrochemical gas sensor according to claim 9, wherein said sensing electrode of said second cell includes a material inert to a gas.

11. (previously presented) The electrochemical gas sensor according to claim 9, wherein said sensing electrode includes gold.

12. (cancelled).

13. (cancelled).

14. (previously amended) The electrochemical gas sensor according to claim 9, wherein said first and second cells further include a reference electrode being spaced apart from said sensing and counter electrodes.

15. (cancelled).

16. (original) An electrochemical gas sensor comprising:

a substrate having a surface;

a counter and reference electrode being deposited on said surface;

a first sensing electrode and a second sensing electrode, being spaced apart from one another and from said counter and reference electrode, being deposited on said surface;

a first electrolytic material having a first thickness and being in contact with said first sensing electrode for carrying a flow of ions;

a second electrolytic material having a second thickness and being in contact with said second sensing electrode for carrying a flow of ions; and

said second thickness being greater than said first thickness.